

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

Claim 1 (currently amended): A server apparatus adapted to communicate with at least one client, each client including an image storage unit for storing print data of a print job, and a printer via a network, comprising:

image storage means for storing the print data of the print job to be executed according to a print request from a client;

order management means for managing a print order of the print job to be executed according to the print request from the client;

transmission means for transmitting transmission permission information to the client based on the print order managed by said order management means, the transmission permission information indicating that the print data may be transmitted to the printer;

determination means for determining whether an end command in response to the transmission permission information is received from the client within a predetermined time; and

control means for transmitting the print data of the print job of the print order from said image storage means to the printer ~~if the print data is not transmitted from the client to the printer, after said transmission means transmits the transmission permission information when said determination means determines that the end command is not received.~~

Claim 2 (previously presented): The server apparatus according to claim 1, wherein, if the print data of the print job to be executed by the print request from the client cannot be stored in said image storage means, causing said order management means to manage the print order of the print job without storing the print data of the print job in said image storage means.

Claim 3 (previously presented): The server apparatus according to claim 1, further comprising history storage means for, with each print job outputted by the printer, storing information indicative of a client that requested the print job and a device that transmitted print data to the printer.

Claim 4 (currently amended): A print managing method for a server apparatus adapted to communicate with at least one client, each client including an image storage unit for storing print data of a print job, and a printer via a network, comprising:

an image storage step of storing print data of a print job, to be executed according to a print request from a client, in image storage means;

an order management step of managing a print order of the print job to be executed according to the print request from the client;

a transmission step of transmitting transmission permission information to the client based on the print order managed at said order management step, the transmission

permission information indicating that the print data may be transmitted to the printer;
a determination step of determining whether an end command in response to the transmission permission information is received from the client within a predetermined time; and
a control step of transmitting the print data of the print job of the print order from the image storage means to the printer ~~if the print data is not transmitted from the client to the printer, after transmission of the transmission permission information at said transmission step when it is determined in said determination step that the end command is not received.~~

Claim 5 (previously presented): The print managing method according to claim 4, wherein, if the print data of the print job to be executed according to the print request from the client cannot be stored in the image storage means, managing the print order of the print job at said order management step without storing the print data of the print job in the image storage means.

Claim 6 (previously presented): The print managing method according to claim 4, further comprising a history storage step of, which each print job outputted by the printer, storing information indicative of a client that requested the print job and a device that transmitted print data to the printer.

Claim 7 (currently amended): A storage medium storing a program for

implementing a print managing method for a server apparatus adapted to communicate with at least one client, each client including an image storage unit for storing print data of a print job, and a printer via a network, wherein the method comprises:

an image storage step of storing print data of a print job, to be executed according to a print request from the client, in image storage means;

an order management step of managing a print order of the print job to be executed according to the print request from the client;

a transmission step of transmitting transmission permission information to the client based on the print order managed at said order management step, the transmission permission information indicating that the print data may be transmitted to the printer;

a determination step of determining whether an end command in response to the transmission permission information is received from the client within a predetermined time; and

a control step of transmitting the print data of the print job of the print order from the image storage means to the printer if the print data is not transmitted from the client to the printer, after transmission of the transmission permission information at said transmission step when it is determined in said determination step that the end command is not received.

Claim 8 (currently amended): An information processing apparatus as a client that communicates with a server apparatus, which manages a print order, and a printer via a network, comprising:

sending means for sending job information, which does not include print data, to the server apparatus so that the server apparatus manages a print order according to the job information;

image storage means for storing print data of a print job ~~to be executed according to a print request corresponding to the job information after said sending means sends the job information;~~

selection means for causing a user to select a spool function of said image storage means or a spool function of the server apparatus, which is adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

determination means for determining whether the spool function of said image storage means is selected or the spool function of the server apparatus is selected by said selection means;

control means for, if it is determined ~~from said selection by said determination~~ means to use the spool function of the server apparatus, transmitting the print data to the server apparatus, whereas, if it is determined ~~from said selection by said determination~~ means to use the spool function of said image storage means, controlling said image storage means to store the print data and controlling said sending means to send the job information;

receiving means for receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer; and

transmission means for transmitting the print data to the printer when said

receiving means receives the transmission permission information from the server apparatus.

Claim 9 (previously presented): The information processing apparatus according to claim 8, further comprising notification means for notifying the server apparatus of the selected spool function.

Claim 10 (previously presented): The information processing apparatus according to claim 8, wherein said selection means causes the user to make a selection by displaying a screen image of a user interface.

Claim 11 (currently amended): A print managing method for an information processing apparatus as a client that communicates with a server apparatus, which manages a print order, and a printer via a network, comprising:

a sending step of sending job information, which does not include print data, to the server apparatus so that the server apparatus manages a print order according to the job information;

an image storage step of storing in image storing means print data of a print job, to be executed according to a print request, in image storage means corresponding to the job information after said sending step sends the job information;

a selection step of causing a user to select a spool function of the image storage

means or a spool function of the server apparatus, which is adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

a determination step of determining whether the spool function of the image storage means is selected or the spool function of the server apparatus is selected in said selection step; and

a control step of, if it is determined ~~at said selection in said determination step~~ that the spool function of the server apparatus is to be used, transmitting the print data to the server apparatus, whereas, if it is determined ~~at said selection in said determination step~~ that the spool function of the image storage means is to be used, controlling the image storage means to store the print data and controlling said sending step to send the job information;

a reception step of receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer; and
a transmission step of transmitting the print data to the printer when the transmission permission information is received from the server apparatus at said reception step.

Claim 12 (previously presented): The print managing method according to claim 11, further comprising a notification step of notifying the server apparatus of the selected spool function.

Claim 13 (previously presented): The print managing method according to claim

11, wherein, at said selection step, a screen image of a user interface is displayed to cause the user to make a selection.

Claim 14 (currently amended): A storage medium storing a program for implementing a print managing method for an information processing apparatus as a client that communicates with a server apparatus, which manages a print order, and a printer via a network, wherein the method comprises:

a sending step of sending job information, which does not include print data, to the server apparatus so that the server apparatus manages a print order according to the job information;

an image storage step of storing in image storage means print data of a print job; ~~to be executed according to a print request, in image storage means~~ corresponding to the job information after said sending step sends the job information;

a selection step of causing a user to select a spool function of the image storage means or a spool function of the server apparatus, which is adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

a determination step of determining whether the spool function of the image storage means is selected or the spool function of the server apparatus is selected in said selection step; and

~~a control step of, if it is determined at said selection in said determination step that~~

the spool function of the server apparatus is to be used, transmitting the print data to the server apparatus, whereas, if it is determined ~~at said selection in said determination~~ step that the spool function of the image storage means is to be used, controlling the image storage means to store the print data and controlling said sending step to send the job information;

 a reception step of receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer; and
 a transmission step of transmitting the print data to the printer when the transmission permission information is received from the server apparatus at said reception step.

Claim 15 (currently amended): An information processing apparatus as a client that communicates with a server apparatus, which manages a print order, and a printer via a network, comprising:

 image storage means for storing print data of a print job to be executed according to a print request;
 determination means for determining to use one of a spool function of said image storage means and a spool function of the server apparatus based on a condition of said image storage means, which is the spool function being adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

 control means for, if said determination means determines to use the spool function of the server apparatus, transmitting the print data to the server apparatus, whereas, if

said determination means determines to use the spool function of said image storage means,
 controlling said image storage means to store the print data;

 receiving means for receiving transmission permission information from the
 server apparatus indicating the print data may be transmitted to the printer; and
 transmission means for transmitting the print data to the printer when said
 receiving means receives the transmission permission information from the server apparatus.

Claim 16 (previously presented): The information processing apparatus according
to claim 15, further comprising notification means for notifying the server apparatus of the
determined spool function.

Claim 17 (previously presented): The information processing apparatus according
to claim 15, wherein said determination means makes a determination according to whether or
not a remaining capacity of said image storage means is equal to or less than a predetermined
amount of capacity.

Claim 18 (currently amended): A print managing method for an information
processing apparatus as a client that communicates with a server apparatus, which manages a
print order, and a printer via a network, comprising:

 an image storage step of storing print data of a print job, to be executed according

to a print request, in image storage means;

 a determination step of determining to use one of a spool function of the image storage means and a spool function of the server apparatus based on a condition of said image storage means, which is the spool function being adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

 a control step of, if it is determined at said determination step that the spool function of the server apparatus is to be used, transmitting the print data to the server apparatus, whereas, if it is determined at said determination step that the spool function of the image storage means is to be used, controlling the image storage means to store the print data;

 a reception step of receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer; and

 a transmission step of transmitting the print data to the printer when the transmission permission information is received from the server apparatus at said reception step.

Claim 19 (previously presented): The print managing method according to claim 18, further comprising a notification step of notifying the server apparatus of the determined spool function.

Claim 20 (previously presented): The print managing method according to claim 18, wherein, at said determination step, a determination is made according to whether or not a

remaining capacity of the image storage means is equal to or less than a predetermined amount of capacity.

Claim 21 (currently amended): A storage medium storing a program for implementing a print managing method for an information processing apparatus as a client that communicates with a server apparatus, which manages a print order, and a printer via a network, wherein the method comprises:

an image storage step of storing print data of a print job, to be executed according to a print request, in image storage means;

a determination step of determining to use one of a spool function of the image storage means and a spool function of the server apparatus based on a condition of said image storage means, which is the spool function being adapted to store the print data of the print job to be executed according to the print request to the server apparatus;

a control step of, if it is determined at said determination step that the spool function of the server apparatus is to be used, transmitting the print data to the server apparatus, whereas, if it is determined at said determination step that the spool function of the image storage means is to be used, controlling the image storage means to store the print data;

a reception step of receiving transmission permission information from the server apparatus indicating that the print data may be transmitted to the printer; and

a transmission step of transmitting the print data to the printer when the

transmission permission information is received from the server apparatus at said reception step.

Claim 22 (currently amended): An information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing a print job and intermediate data of the print job, and a printer via a network, comprising:

image storage means for storing image the print job and the intermediate data of

[[a]] the print job to be executed according to a print request;

list acquisition means for acquiring a list of print jobs managed by the server apparatus;

job designation means for designating a print job to be previewed based on the list of print jobs acquired by said list acquisition means;

determination means for determining whether image the intermediate data of the print job designated by said job designation means is stored in said image storage means or in the spool unit of the server apparatus;

image intermediate data acquisition means for, if it is determined by said determination means that the image intermediate data of the print job designated by said job designation means is stored in said image storage means, reading the image intermediate data from said image storage means, whereas, if it is determined by said determination means that the image intermediate data is stored in the server apparatus, downloading the image intermediate data from the server apparatus; and

control means for displaying a preview image based on the image intermediate data acquired by said image intermediate data acquisition means.

Claim 23 (previously presented): The information processing apparatus according to claim 22, wherein said job designation means causes a user to make a designation by displaying a screen image of a user interface.

Claim 24 (previously presented): The information processing apparatus according to claim 22, wherein the image data is an EMF file comprising intermediate data.

Claim 25 (previously presented): The information processing apparatus according to claim 24, wherein said control means displays the preview image by controlling a display function of an Operating System to execute the acquired EMF file.

Claim 26 (currently amended): A print managing method for an information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing a print job and intermediate data of the print job, and a printer via a network, comprising:

an image storage step of storing image the print job and the intermediate data of [[a]] the print job, to be executed according to a print request, in image storage means;

a list acquisition step of acquiring a list of print jobs managed by the server apparatus;

a job designation step of designating a print job to be previewed based on the list of print jobs acquired at said list acquisition step;

a determination step of determining whether ~~image~~ the intermediate data of the print job designated at said job designation step is stored in the image storage means or in the spool unit of the server apparatus;

an ~~image~~ intermediate data acquisition step of, if it is determined at said determination step that the ~~image~~-data of the print job designated at said job designation step is stored in the image storage means, reading the ~~image~~ intermediate data from the image storage means, whereas, if it is determined at said determination step that the ~~image~~ intermediate data is stored in the server apparatus, downloading the ~~image~~ intermediate data from the server apparatus; and

a control step of displaying a preview image based on the ~~image~~ intermediate data acquired at said ~~image~~ intermediate data acquisition step.

Claim 27 (previously presented): The print managing method according to claim 26, wherein, at said job designation step, a screen image of a user interface is displayed to cause a user to make designation.

Claim 28 (previously presented): The print managing method according to claim 26, wherein the image data is an EMF file comprising intermediate data.

Claim 29 (previously presented): The print managing method according to claim 28, wherein, at said control step, the preview image is displayed by controlling a display function of an Operating System to execute the acquired EMF file.

Claim 30 (currently amended): A storage medium storing a program for implementing a print managing method for an information processing apparatus as a client that communicates with a server apparatus, which manages a print order and has a spool unit for storing a print job and intermediate data of the print job, and a printer via a network, wherein the method comprises:

an image storage step of storing image the print job and the intermediate data of [[a]] the print job, to be executed according to a print request, in image storage means;

a list acquisition step of acquiring a list of print jobs managed by the server apparatus;

a job designation step of designating a print job to be previewed based on the list of print jobs acquired at said list acquisition step;

a determination step of determining whether image the intermediate data of the print job designated at said job designation step is stored in the image storage means or in the

spool unit of the server apparatus;

an image intermediate data acquisition step of, if it is determined at said determination step that the image intermediate data of the print job designated at said job designation step is stored in the image storage means, reading the image intermediate data from the image storage means, whereas, if it is determined at said determination step that the image intermediate data is stored in the server apparatus, downloading the image intermediate data from the server apparatus; and

a control step of displaying a preview image based on the image intermediate data acquired at said image intermediate data acquisition step.